

REMARKS/ARGUMENTS

By this amendment, Claims 1-2, 38, 42, and 48-49 have been amended. Claims 3, 17-20, 24, 43-45, 47, and 50 have been cancelled and Claims 51-61 have been added. Hence, Claims 1-2, 4-16, 21-23, 25-42, 46, 48-49, and 51-61 are pending in the application. The amendments to the claims as indicated herein do not add any new matter to this application. Furthermore, amendments made to the claims as indicated herein have been made to exclusively improve readability and clarity of the claims and not for the purpose of overcoming alleged prior art.

Each issue raised in the Office Action mailed November 26, 2008 (the “Final Office Action”) is addressed hereinafter.

I. ISSUES NOT RELATING TO CITED ART

A. 35 U.S.C. § 101

The Advisory Action mailed February 9, 2009 indicates that the rejection of Claims 47-48 under 35 U.S.C. § 101 has been overcome by Applicant’s response to the Final Office Action, which was submitted January 23, 2009.

B. NEWLY ADDED CLAIMS

Claims 51-61 have been added to the claim set. These claims are amply supported by the specification as follows: Claim 51 is amply supported by at least paragraphs [0011], and [0021]; Claim 52 is amply supported by at least paragraph [0021]; Claim 53 is amply supported by at least paragraph [0045]; Claim 54 is amply supported by at least paragraph [0046]; Claim 55 is amply supported by at least paragraph [0047]; Claim 56 is amply supported by at least paragraph [0054]; and Claim 57 is amply supported by at least paragraph [0055].

Claim 58 is substantially similar to Claim 1, and is amply supported by the specification by at least Claim 1 and the sections of the specification that support Claim 1. Claim 59 is amply

supported at least by paragraphs [0021], [0022], [0042], and the abstract of the specification. Furthermore, Claims 60-61 are computer-readable medium claims, and are amply supported in the specification for at least the same reasons as their method claim counterparts.

II. ISSUES RELATING TO PRIOR ART

A. CLAIMS 1-3 AND 7-50

Claims 1-3 and 7-50 were rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Jagadish et al., (Jagadish, hereinafter) “TIMBER: A native XML database” by Jagadish et al., The VLDB Journal (2002), published online December 19, 2002. This rejection is respectfully traversed.

Claim 1

Claim 1 recites:

A method comprising the computer-implemented steps of:
gathering statistics by a database server about nodes that are stored in a database repository that is managed by the database server;
wherein said nodes form a hierarchy;
wherein each node is either an XML file or an XML file container;
wherein at least one node in the hierarchy is an XML file container that
contains a plurality of XML files, each of which contains a plurality of
XML elements;
storing said statistics; and
in response to a request to the database server for access to one or more XML resources from said database repository, the database server computing a computational cost associated with each of two or more methods of accessing said one or more XML resources from said database repository, based on said statistics;
wherein the method is performed by one or more computing devices.

Claim 1, as amended, is allowable because Jagadish does not disclose at least the above-bolded features.

The Final Office Action cites Jagadish Section 1, fourth paragraph for allegedly teaching “wherein said nodes form a hierarchy; [and] wherein each node is either an XML file or a

“container” recited by Claim 1. However, Jagadish fails to teach or suggest “wherein said nodes form a hierarchy; [and] wherein each node is either an XML file or an **XML file container**” recited by Claim 1, as amended.

Jagadish discusses storing XML documents using a database system. In Jagadish, the tree structure of an XML document (i.e., the hierarchical relationships between the elements **within an XML document**) is retained in storage.

The rejection by the Final Office Action is apparently based on the proposition that the “container” recited by Claim 1 is broad enough to allow a proper interpretation of the container to be an XML element. However, as pointed out in the pre-appeal brief, this interpretation is inconsistent with what a person of skill in the art would understand to be the meaning of a container in Claim 1 and is clearly inconsistent with the description of containers in the specification.

However, to expedite a positive conclusion to prosecution of these claims, Claim 1 has been amended to make absolutely clear that the container nodes of Claim 1 are “XML file containers” and are not properly interpreted as XML elements of an XML file. Furthermore, Claim 1, as amended, also states that “at least one node in the hierarchy is an XML file container that contains a plurality of XML files, each of which contains a plurality of XML elements”. Thus, at least one XML file container of Claim 1 contains XML files, which, in turn, contains XML elements. Therefore, an XML file container of Claim 1 is not properly interpreted to be an XML element of an XML file.

Accordingly, in citing this portion of Jagadish, the Final Office Action apparently interprets the nodes described in Jagadish to be the nodes of Claim 1. However, the nodes described in Jagadish are not properly interpreted to be the nodes of Claim 1. The nodes of Claim 1 are XML files and XML file containers, as previously indicated. In contrast, the nodes

of Jagadish are XML elements, which are component parts of an XML file. (See, e.g., Jagadish, Section 3.1, first and second paragraphs: “The Data Parser takes an **XML document** as input, and produces a parse tree as output. The Data Manager takes **each node of this parse tree** . . . For storage efficiency reasons, a node in the Timber Data Manager is not exactly the same as a DOM [57] node. **There is a node corresponding to each element**, with child nodes for sub-elements.”) Therefore, the nodes of Jagadish are properly interpreted to be the nodes of Claim 1.

In a similar manner, the Final Office Action apparently interprets the structure of an XML document described in Jagadish to be the hierarchy of nodes recited by Claim 1. However, the nodes in the hierarchy of Claim 1 are either XML files or XML file containers. A hierarchy between **elements within an XML document**, as described in Jagadish, is very different than a hierarchy between **XML documents and the containers of XML documents**, as recited by Claim 1. Thus, Jagadish fails to teach or suggest a hierarchy of nodes that are either XML files or XML file containers as recited by Claim 1.

The Balance of the Claims

Independent Claims 38 and 42 also recite “wherein each node is either an XML file or an XML file container; wherein XML files of said nodes are XML resources; [and] wherein at least one node in the hierarchy is an XML file container that contains a plurality of XML files, each of which contains a plurality of XML elements” as recited by Claim 1. Therefore, Claims 38 and 42 are patentable over Jagadish for at least the same reasons as recited above in connection with Claim 1. Further, independent Claim 48 recites features substantially similar to those of Claim 1, and is thus patentable over the cited art for at least the same reasons as Claim 1.

Claims 2, 7-16, 21-23, 25-42, 46, and 48-49 each depend from one of these independent claims. Thus, these dependent claims are patentable over Jagadish for at least the same reasons

as those discussed in connection with the independent claims upon which they depend. As is discussed above, these independent claims recite features that Jagadish does not disclose. Therefore, Claims 2, 7-16, 21-23, 25-42, 46, and 48-49, which inherit these features, are patentable over Jagadish. Claims 3, 17-20, 24, 43-45, 47, and 50 have been cancelled, and therefore the rejection with respect to these claims is considered moot. Reconsideration is respectfully requested.

B. CLAIMS 4-6

Claims 4-6 were rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Jagadish in view of Michel et al., (Michel, hereinafter), Patent No. 7,113,936. This rejection is respectfully traversed. Claims 4-6 depend from Claim 1, and therefore inherit the distinguished features of Claim 1. The Office Action does not even allege that Michel discloses the distinguished features of Claim 1 (which are not disclosed or suggested in Jagadish). Claims 4-6 are therefore patentable for the same reasons as discussed herein for Claim 1. Reconsideration is respectfully requested.

C. CLAIMS 51-76

Claim 51

Claim 51 recites “the request to the database server for access to one or more XML resources is through a view.” Jagadish fails to teach or suggest the features of Claim 51.

The Final Office Action cites Jagadish Section 6, second paragraph, and Section 6.2, third paragraph for allegedly teaching “a request to the database server for access to one or more XML resources from said database repository,” recited by Claim 1. However, Jagadish fails to teach or suggest “the request to the database server for access to one or more XML resources **is through a view**” recited by Claim 51, as amended.

The cited portions of Jagadish describe evaluation of the cost of various evaluation plans for query patterns. In citing this portion of Jagadish, the Final Office Action apparently interprets the query pattern of Jagadish to be the “request to the database server for access to one or more XML resources” recited by Claim 1. However, Claim 51 recites that the request is for access **through a view**. Jagadish fails to teach or suggest such a request for access, through a view, to one or more XML resources as recited by Claim 51.

Claim 59

Claim 59 recites:

A method comprising the computer-implemented steps of:
gathering statistics by a database server about XML files and XML file containers; wherein the XML files and XML file containers are hierarchically stored in a database repository that is managed by the database server;
receiving a request to the database server for access, through a view, to one or more XML resources;
computing a selectivity value, based at least in part on the statistics, for a predicate included in the request; and
determining a query plan based, at least in part, on the selectivity value;
wherein the method is performed by one or more computing devices.

Claim 59 is allowable over the art because at least the above-bolded features are not taught or suggested by Jagadish or Michel.

The Balance of the Claims

Claim 58 recites features substantially similar to those of Claim 1, and is thus patentable over the cited art for at least the same reasons as Claim 1. With respect to the remaining Claims 52-57 and 60-61, all of these remaining claims depend directly or indirectly on one of the claims above, and therefore are allowable for the reasons given above. In addition, each of these claims independently introduces features that separately render the claim patentable over the cited art.

While the remaining dependent claims also introduce distinct patentable features, to expedite favorable resolution of this case, separate arguments are not provided for them.

III. CONCLUSIONS & MISCELLANEOUS

For the reasons set forth above, all of the pending claims are now in condition for allowance. The Examiner is respectfully requested to contact the undersigned by telephone relating to any issue that would advance examination of the present application.

A petition for extension of time, to the extent necessary to make this reply timely filed, is hereby made. If applicable, please charge our deposit account for the petition for extension of time fee. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to charge any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,
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